

21379/Spec Ph-III/P&S/70/MAP

(All PMs & DEPMCs)

**MANDATORY ELECTRICAL TESTS FOR ELECTRIC WIRING & FITTINGS FOR
FUTURE PROJECTS OF MAP PH-II & PH-III**

1. Given in the succeeding sub paragraphs is the Electric Tests which will be mandatory for electric wiring & fittings for buildings for the future projects of MAP Phase-II & Phase-III:

(a) **Insulation Resistance:** Insulation resistance shall be measured by 500 Volts Megger by applying current between earth and the whole system of conductor or any section thereof with all fuses in place and all switches closed. The insulation resistance in Mega Ohm of the installation shall not be less than 50 Mega Ohms divided by the No of outlets in the circuit. Where a whole installation is being tested a lower value than that given by the relevant formula, subject to a minimum of 1 Mega Ohm should be acceptable.

(b) **Polarity Test of Switch:** In a two wire installation a test shall be made to verify that all switches in every circuit have been fitted in the same conductor throughout and such conductor shall be labeled or marked for connection to the phase conductor or to the non-earthed conductor of the supply. In a three wire or a four wire installation a test shall be made to verify that every non-linked, single pole switch is fitted in a conductor which is labelled or marked for connection to one of the outer or phase conductor of the supply. The installation shall be connected to the supply for testing. The terminals of the switches shall be tested by a test lamp, one lead of which is connected to the earth. Glowing of test lamp to its full brilliance, when the switch is in 'on' position irrespective of appliance in position or not, shall indicate that the switch is connected to the right polarity.

(c) **Testing of Earth Continuity Path:** The earth continuity conductor including metal conduits and metallic envelopes of cables in all cases shall be tested for electric continuity and the electrical resistance of the same alongwith the earthing lead but excluding any added resistance or earth leakage circuit breaker measured from the connection with the earth electrode to any point in the earth continuity conductor in the completed installation shall not exceed one Ohm.

2. PMs shall maintain a record of the above.

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for DG MAP

Internal

Team 'A'	-	for necessary action please.
Team 'B'	-	-do-
Contract Section 'A'	-	-do-
Contract Section 'B'	-	-do-
Arch Section	-	-do-